

ON SOME PYCNOGONIDA OF FRENCH OCEANIA

C. Allan Child

There are few records of pycnogonids from anywhere in the Pacific basin other than from its surrounding continental margins. A few scattered reports appear in comprehensive coastal expedition lists (Hedgpeth, 1961; Stock, 1968), in expeditions into some of the deeper areas (Schimkewitsch, 1893; Cole, 1909), and to a few island groups such as Hawaii (Hilton, 1942) and Indonesia (Loman, 1908; Stock, 1953).

This paper reports on a few specimens collected from the Tuamotu Archipelago which serve to extend the range of a species previously reported from there (Child, 1970), and a small series of specimens collected in New Caledonia, from which no pycnogonid records have been published. This collection of 46 specimens includes 6 species representing 4 genera. The majority are *Tanystylum bredini* Child, from the Tuamotus. The others are *Achelia assimilis* (Haswell), *Achelia nana* (Loman), *Endeis mollis* (Carpenter), *Anoplodactylus batangensis* (Helfer), *Anoplodactylus longiformis*, new species, an unidentifiable *Anoplodactylus* larva, and a juvenile *Tanystylum* species, all from New Caledonia.

This collection was placed at my disposal by Dr. J. Forest of the Paris Museum Zoological Laboratory (Arthropods), and through the courtesy of Mme. Françoise Arnaud, to both of whom I express my gratitude. The specimens are deposited in the Paris Museum.

Ammotheidae Dohrn, 1881

Achelia nana (Loman)

Ammothea nana Loman, 1908:60-61, pl. I, figs. 1-13.

Achelia nana.—Stock, 1953:300-301, fig. 14; 1954:97; 1965:14-15, figs. 1-3; 1968:16; 1974:13-14.—Utinomi, 1971:329-330.

Material examined.—New Caledonia, Île Testard Sud, Baie de St. Vincent, 22°00'S, 166°05'E, coll. Salvat with Mission Singer-Polignac, 11 December 1961. One female.

Remarks.—This specimen is so like *A. nana*, that I am calling it that even though the trunk is more oval than that shown in figures of the species. The palps and legs agree with these figures.

This record extends the distribution of *A. nana* farther south in the western Pacific from its previous records in Indonesia and from Madagascar to Japan.

Achelia assimilis (Haswell)

Achelia (Ignavogriphus) assimilis (Haswell).—Fry and Hedgpeth, 1969: 106 [literature, synonymy].

Material examined.—New Caledonia, Île Testard Sud, Baie de St. Vincent, 22°00'S, 166°05'E, coll. Salvat with Mission Singer-Polignac, 18 November 1961. One female.

Remarks.—This rather variable species might be expected in New Caledonia as its previously known distribution almost rings these islands.

Tanystylum sp.

Material examined.—New Caledonia, Île de Pins (Kuto), algues de dragage, coll. Mme. Pruvot. One juvenile.

Remarks.—This specimen looks very much like *Tanystylum bredini*, but only has 2 propodal heel spines. It is nearly adult. Since no *Tanystylum* species is known from New Caledonia, I will refrain from assigning it to any known species.

Tanystylum bredini Child

Tanystylum bredini Child, 1970:296–299, fig. 3.

Material examined.—Tuamotu Archipelago, Îles Gambier, Teota, Banc Gaveau, 23°08'S, 134°58'W, coll. G. Seurat, from *Ulva*, 27 January 1904; 21 specimens. Same collecting data, 8 March 1904; 17 specimens.

Remarks.—I can find no variation in the palp segmentation, lateral process tubercles, oviger, or legs. The chelifore stumps appear shorter in some specimens than in others.

The species was previously known from the Society Islands and its distribution is extended here to the southern reaches of the Tuamotus.

Endeidae Philippi, 1843

Endeis mollis (Carpenter)

Endeis mollis.—Stock, 1965:31 [literature, synonymy]; 1968:59 [key]; 1975a:76; 1975b:1083–1085.—Utinomi, 1971:327.

Material examined.—New Caledonia, Île de Pins (Kuto), algues de dragage, coll. Mme. Pruvot; 2 males.

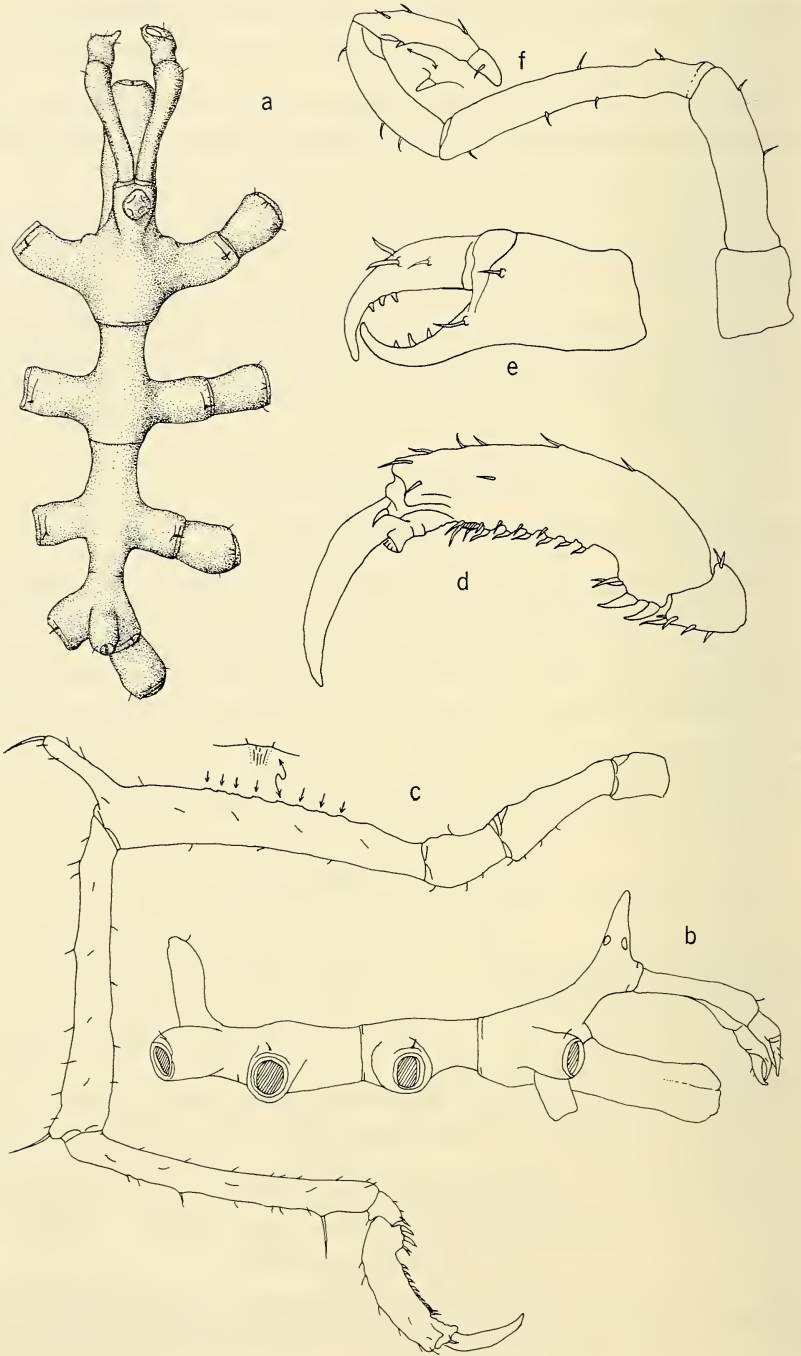
Remarks.—These specimens have the usual row of many cement gland pores on legs without tubercles or large spines.

Phoxichilidiidae Sars, 1891

Anoplodactylus longiformis, new species

Fig. 1

Material examined.—New Caledonia, Île de Pins (Kuto), 22°37'S, 167°30'E, algues de dragage, coll. Mme. Pruvot; One male (holotype).



Description.—Trunk very elongate. First 2 trunk segmentation lines complete, third line barely discernable laterally and ventrally. Lateral processes moderately long, separated by about twice their diameter, armed dorsodistally with a single small seta. Neck moderately long in relation to lateral processes. Abdomen long, erect, armed with 2 distal setae. Ocular tubercle a tall cone, rounded at apex. Eyes small, without pigment in alcohol.

Proboscis thin, cylindrical, slightly bulbous toward tip.

Chelifores thin; scape without tubercles, armed with 2 or 3 distal setae. Chela palm rectangular, armed with 2 or 3 small setae. Fingers strongly curved, not longer than palm, robust, overlapping when closed, armed with 3 or 4 setae on movable finger and 1 seta on fixed finger. Both fingers with 3 narrow pointed teeth.

Palp buds forming slight bulges on anterior of first lateral processes.

Oviger segment 3 one and one-half times length of segment 2. Terminal 2 segments together longer than fourth segment. Several setae on all but first segment and 1 short strong spine on endal surface of fifth segment.

Legs moderately slender. Femur slightly longer than subequal tibiae. Femur with long dorsodistal tubercle, longer than diameter of segment. Cement glands a single row of 8 to 10 cribriform cups on very slightly raised surface. First tibia with small dorsodistal tubercle. All segments armed with a few small setae and the major segments with a single long dorsodistal seta. Propodus moderately curved, with small heel armed with 2 stout curved spines and 2 setae. Sole armed with from 5 to 7 curved spines, most with lateral setae, and a very small lamina only $\frac{1}{4}$ the sole length. Claw slender. Small auxiliaries thin and curved.

Measurements (in mm).—

Trunk length (chelifore insertion to tip 4th lateral processes)	1.74		
Trunk width (across first lateral processes)	0.87		
Proboscis length (laterally)	0.65		
Abdomen length (laterally)	0.32		
Third leg:			
Coxa 1	0.22	Tibia 1	1.2
Coxa 2	0.46	Tibia 2	1.17
Coxa 3	0.31	Tarsus	0.14
Femur	1.46	Propodus	0.51
		Claw	0.28

←

Fig. 1. *Anoplodactylus longiformis*: a, Dorsal view of trunk; b, Lateral view of trunk; c, 3rd leg, with enlargement of femoral cement gland; d, Terminal segments of 3rd leg; e, Chela; f, Oviger, with enlargement of spine.

Distribution.—Type-locality: New Caledonia, Southwest Pacific Ocean. Depth range: unknown.

Etymology.—The proposed name reflects the discovery of another long thin form of *Anoplodactylus* species that belongs presumably to a group of closely related thin species.

Remarks.—This species is so near *Anoplodactylus longiceps* that I would have assigned it to that species were it not for the 2 propodal heel spines and the 8–10 cement glands of the new species. The males of *longiceps* (= *longicollis* Williams, preoccupied) clearly have 1 heel spine and 2 cribriform cement glands raised on large swellings. This new species is related to a number of similar long tenuous forms, such as *A. massiliformis*, *insigniformis*, *oculatus*, and *cribellatus* as well as *longiceps*. All of these species differ from *A. longiformis* in their femoral cement gland count. The first two have a single gland while *oculatus* has 5 and *cribellatus* has about 15. The cement gland shape and number appear to be among the most reliable of the diagnostic characters in this genus.

The new species is more closely related to *A. oculatus*, a species known from the British Isles, and *longiceps*, than to the other species mentioned. It differs from *oculatus* in having shorter chela fingers with teeth, in having much shorter oviger segments, in having a longer trunk and a shorter and more cylindrical proboscis. A propodal lamina is not shown for *oculatus*, although it may not have been recognized at the time. The new species has a very short lamina and far fewer sole spines on a curved sole.

The species most closely related in both characters and geography, *A. longiceps*, has been found in Queensland, Australia (Williams, 1941), Western Australia (Child, 1975), and Indonesia (Stock, 1956). The dredging depth is not given for the new species.

Anoplodactylus batangensis (Helfer)

Anoplodactylus batangensis.—Stock, 1968:54 [literature, synonymy]; 1975a: 133; 1975b:1082–1083.—Arnaud, 1973:957.—Child, 1975:191.

Material examined.—New Caledonia, Île de Pins, (Kuto), 22°37'S, 167°30'E, coll. Mme. Pruvot; One male.

Remarks.—This circumtropical species is one of the easiest to recognize of the genus. There is apparently no other one known with a long tubular proboscis which curves dorsally.

Anoplodactylus sp.

Material examined.—New Caledonia, Baie de St. Vincent, Grand Tenia, 22°01'S, 165°57'E, coll. Mission Singer-Polignac, Sta. B, 9 December 1961; One larva.

Remarks.—This specimen is without sufficient characters to assign it to any known species or even a complex of species.

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Department of Invertebrate Zoology, Smithsonian Institution, Washington, D.C. 20560.